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MATERIAL SAFETY DATA SHEET

GASOLINE, BP AVIATION 100LL

MSDS No. 0219802 US/ENGLISH

SECTION 1 CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

MANUFACTURER/SUPPLIER:
Air BP
28100 Torch Parkway
Warrenville, IL 60555-4015
USA

EMERGENCY HEALTH INFORMATION:
1 (800) 447-8735

EMERGENCY SPILL INFORMATION:
1 (800) 424-9300 CHEMTREC (USA)

OTHER PRODUCT SAFETY INFORMATION:
1 (630) 434-6377 (USA)

SUBSTANCE: GASOLINE, BP AVIATION 100LL

TRADE NAMES/SYNONYMS:
AVGAS 100LL; AVIATION FUEL; AF5; 2198

CREATION DATE: Oct 19 1999
REVISION DATE: Mar 02 2000

SECTION 2 COMPOSITION, INFORMATION ON INGREDIENTS

COMPONENT: NAPHTHA, PETROLEUM, LIGHT ALKYLATE
CAS NUMBER: 64741-66-8

EC NUMBER (EINECS): 265-068-8
PERCENTAGE: <100

COMPONENT: 2,2,4-TRIMETHYLPENTANE
CAS NUMBER: 540-84-1
EC NUMBER (EINECS): 208-759-1
PERCENTAGE: 20-30

COMPONENT: 2,3,4-TRIMETHYLPENTANE
CAS NUMBER: 565-75-3
EC NUMBER (EINECS): 209-292-6
PERCENTAGE: 10-20

COMPONENT: ISOPENTANE
CAS NUMBER: 78-78-4
EC NUMBER (EINECS): 201-142-8
PERCENTAGE: 5-10

COMPONENT: 2-METHYLPENTANE
CAS NUMBER: 107-83-5
EC NUMBER (EINECS): 203-523-4
PERCENTAGE: 1-5

COMPONENT: N-BUTANE
CAS NUMBER: 106-97-8
EC NUMBER (EINECS): 203-448-7
PERCENTAGE: 1-5

COMPONENT: 2,3-DIMETHYLBUTANE
CAS NUMBER: 79-29-8
EC NUMBER (EINECS): 201-193-6
PERCENTAGE: 1-5

COMPONENT: 2,4-DIMETHYLPENTANE
CAS NUMBER: 108-08-7
EC NUMBER (EINECS): 203-548-0
PERCENTAGE: 1-5

COMPONENT: 2,4-DIMETHYLHEXANE
CAS NUMBER: 589-43-5
EC NUMBER (EINECS): 209-649-6
PERCENTAGE: 1-5

COMPONENT: 2,3-DIMETHYLPENTANE
CAS NUMBER: 565-59-3
EC NUMBER (EINECS): 209-280-0
PERCENTAGE: 1-5

COMPONENT: BENZENE

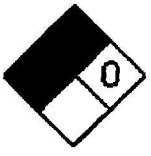
CAS NUMBER: 71-43-2
EC NUMBER (EINECS): 200-753-7
PERCENTAGE: 0.1-0.2

COMPONENT: TETRAETHYL LEAD
CAS NUMBER: 78-00-2
EC NUMBER (EINECS): 201-075-4
PERCENTAGE: 0-0.05

(See Section 8, "Exposure Controls, Personal Protection", for exposure guidelines)

SECTION 3 HAZARDS IDENTIFICATION

NFPA RATINGS (SCALE 0-4): HEALTH=2 FIRE=3 REACTIVITY=0



EMERGENCY OVERVIEW:
PHYSICAL FORM: liquid
ODOR: hydrocarbon odor
SIGNAL WORD: DANGER!
MAJOR HEALTH HAZARDS: Causes eye and skin irritation. Inhalation of vapor/aerosol concentrations above the recommended exposure limits causes headaches, drowsiness, and nausea, and may lead to unconsciousness or death. Harmful or fatal if liquid is aspirated into lungs. Contains Benzene. Cancer hazard. Can cause blood disorders. Long-term exposure to vapors has caused cancer in laboratory animals. Harmful when absorbed through the skin.
PHYSICAL HAZARDS: Extremely flammable.

POTENTIAL HEALTH EFFECTS:
INHALATION:
Inhalation of vapor/aerosol concentrations above the recommended exposure limits causes headaches, drowsiness, and nausea, and may lead to unconsciousness or death. Can cause respiratory irritation. Cancer hazard. Can cause blood disorders. See Toxicological Information section (Section 11).
SKIN CONTACT:
Causes skin irritation. Prolonged or repeated contact can defat the skin and lead to irritation and/or dermatitis. Cancer hazard. Can cause blood disorders. See Toxicological Information section (Section 11).
EYE CONTACT:
Causes eye irritation.
INGESTION:
Harmful or fatal if liquid is aspirated into lungs. Ingestion causes gastrointestinal irritation and diarrhea. See Toxicological Information section (Section 11).

SECTION 4 FIRST AID MEASURES

INHALATION: If adverse effects occur, remove to uncontaminated area. Give artificial respiration if not breathing. Get immediate medical attention.

SKIN CONTACT: Wash exposed skin with soap and water. Remove contaminated clothing and thoroughly clean and dry before reuse. Get medical attention if irritation develops.

EYE CONTACT: Flush eyes with plenty of water. Get medical attention if irritation persists.

INGESTION: If swallowed, do NOT induce vomiting. Get immediate medical attention.

SECTION 5 FIRE FIGHTING MEASURES

FIRE AND EXPLOSION HAZARDS: Severe fire hazard. The vapor is heavier than air. Vapors or gases may ignite at distant ignition sources and flash back. Vapor/air mixtures are explosive.

EXTINGUISHING MEDIA: carbon dioxide, regular dry chemical, regular foam, water

FIRE FIGHTING: Move container from fire area if it can be done without risk. Cool containers with water spray until well after the fire is out. Flood with fine water spray. Do not scatter spilled material with high-pressure water streams. Avoid inhalation of material or combustion by-products. Stay upwind and keep out of low areas.

FIRE FIGHTING PROTECTIVE EQUIPMENT: Firefighters should wear full bunker gear, including a positive pressure self contained breathing apparatus.

FLASH POINT: -40 F (-40 C)
LOWER FLAMMABLE LIMIT: >1.4 % by volume
UPPER FLAMMABLE LIMIT:
AUTOIGNITION: 824 F (440 C)
FLAMMABILITY CLASSIFICATION: Extremely flammable.

HAZARDOUS COMBUSTION PRODUCTS:
Thermal decomposition products or combustion: hydrocarbons, oxides of carbon

SECTION 6 ACCIDENTAL RELEASE MEASURES

Avoid heat, flames, sparks and other sources of ignition. Stop leak if possible without personal risk. Reduce vapors with water spray. Small spills: Absorb with sand or other non-combustible material. Collect spilled material in appropriate container for disposal. Large spills: Dike for later disposal. Cover with plastic sheet or tarp to minimize spreading and protect from contact with water. Prevent spreading by diking, ditching, or absorbing on inert materials.

SECTION 7 HANDLING AND STORAGE

STORAGE: Store in flammable liquids storage area. Keep container tightly closed. Store away from heat, ignition sources, and open flame in accordance with applicable regulations. Do not store in unlabeled containers.

HANDLING: Keep away from heat, sparks and flame. Keep container tightly closed. Use only with adequate ventilation. Ground and bond containers when transferring materials. Do not cut, puncture, or weld on or near this container. After this container has been emptied, it may contain flammable vapors; observe all

warnings and precautions listed for this product. Wash thoroughly after handling. Do not siphon this product by mouth. Do not eat, drink or smoke in areas of use or storage. Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet facilities. Remove contaminated clothing and thoroughly clean and dry before reuse. SPECIAL PRECAUTIONS: Avoid strong oxidizers. USE AS MOTOR FUEL ONLY.

SECTION 8 EXPOSURE CONTROLS, PERSONAL PROTECTION

EXPOSURE LIMITS:
GASOLINE, BP AVIATION 100LL:
GASOLINE (BULK HANDLING):
300 ppm (900 mg/m3) OSHA TWA (vacated by 58 FR 35338, June 30, 1993)
500 ppm (1500 mg/m3) OSHA STEL (vacated by 58 FR 35338, June 30, 1993)
300 ppm ACGIH TWA
500 ppm ACGIH STEL

N-BUTANE:
800 ppm (1900 mg/m3) OSHA TWA (vacated by 58 FR 35338, June 30, 1993)
800 ppm ACGIH TWA
800 ppm (1900 mg/m3) MEXICO TWA

HEXANE, ALL ISOMERS OTHER THAN N-HEXANE:
500 ppm (1800 mg/m3) OSHA TWA (vacated by 58 FR 35338, June 30, 1993)
1000 ppm (3600 mg/m3) OSHA STEL (vacated by 58 FR 35338, June 30, 1993)
500 ppm ACGIH TWA
1000 ppm ACGIH STEL
500 ppm (1800 mg/m3) MEXICO TWA
1000 ppm (3600 mg/m3) MEXICO STEL

BENZENE:
1 ppm OSHA TWA
5 ppm OSHA STEL 15 minute(s)
0.5 ppm OSHA action level
0.5 ppm ACGIH TWA (skin)
2.5 ppm ACGIH STEL (skin)
10 ppm (30 mg/m3) MEXICO TWA
25 ppm (75 mg/m3) MEXICO STEL

TETRAETHYL LEAD:
0.075 mg(Pb)/m3 OSHA TWA (skin)
0.1 mg(Pb)/m3 ACGIH TWA (skin)
0.1 mg(Pb)/m3 MEXICO TWA (skin)
0.3 mg(Pb)/m3 MEXICO STEL (skin)

VENTILATION: Control airborne concentrations below the exposure guidelines.

EYE PROTECTION: Do not get in eyes. Wear eye protection.

CLOTHING: Do not get on skin or clothing. Wear protective clothing, including shoes that cannot be penetrated by chemicals or oil, if prolonged or repeated contact is likely.

GLOVES: Wear gloves that cannot be penetrated by chemicals or oil.

RESPIRATOR: Use with adequate ventilation.
Avoid breathing vapor and/or mist.
If heated and ventilation is inadequate, use a NIOSH certified respirator with an organic vapor cartridge and N95 particulate filter.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE: liquid
APPEARANCE: clear
ODOR: hydrocarbon odor
BOILING POINT: 68-338 F (20-170 C)
FREEZING POINT: Not available
VAPOR PRESSURE: 5.5-7.0 psi
VAPOR DENSITY (air=1): >1
SPECIFIC GRAVITY (water=1): 0.7 @ 20 C
WATER SOLUBILITY: almost insoluble
PH: Not available
VOLATILITY: 100%
ODOR THRESHOLD: Not available
EVAPORATION RATE: Not available
VISCOSITY:
COEFFICIENT OF WATER/OIL DISTRIBUTION: Not available

SECTION 10 STABILITY AND REACTIVITY

REACTIVITY: Stable at normal temperatures and pressure.

CONDITIONS TO AVOID: Avoid heat, flames, sparks and other sources of ignition. Containers may rupture or explode if exposed to heat. Keep out of water supplies and sewers.

INCOMPATIBILITIES: strong oxidizing materials

HAZARDOUS DECOMPOSITION:
Thermal decomposition products or combustion: hydrocarbons, oxides of carbon

POLYMERIZATION: Will not polymerize.

SECTION 11 TOXICOLOGICAL INFORMATION

EYE IRRITATION: Testing not conducted. See Other Toxicity Data.

SKIN IRRITATION: Testing not conducted. See Other Toxicity Data.

DERMAL LD50: Testing not conducted. See Other Toxicity Data.

ORAL LD50: Testing not conducted. See Other Toxicity Data.

INHALATION LC50: Testing not conducted. See Other Toxicity Data.

OTHER TOXICITY DATA:
Specific toxicity tests have not been conducted on this product. Our hazard evaluation is based on information from similar products, the ingredients, technical literature, and/or professional experience.

Acute toxicity of benzene results primarily from depression of the central nervous system (CNS). Inhalation of concentrations over 50 ppm can produce headache, lassitude, weariness, dizziness, drowsiness, or excitation. Exposure to very high levels can result in unconsciousness and death. Long-term overexposure to benzene has been associated with certain types of leukemia in humans. In addition, the International Agency for Research on Cancer (IARC), the National Toxicology Program, and OSHA consider benzene to be a human carcinogen. Chronic exposures to benzene at levels of 100 ppm and below have been reported to cause adverse blood effects including anemia. Benzene exposure can occur by inhalation and absorption through the skin. Inhalation and forced feeding studies of benzene in laboratory animals have produced a carcinogenic response in a variety of organs, including possibly leukemia, other adverse effects on the blood, chromosomal changes and some effects on the immune system. Exposure to benzene at levels up to 300 ppm did not produce birth defects in animal studies; however, exposure to the higher dosage levels (greater than 100 ppm) resulted in a reduction of body weight of the rat pups (fetotoxicity). Changes in the testes have been observed in mice exposed to benzene at 300 ppm, but reproductive performance was not altered in rats exposed to benzene at the same level.

Aspiration of this material into the lungs can cause chemical pneumonia and can be fatal. Aspiration into the lungs can occur while vomiting after ingestion of this material.

Sniffing (abuse) or intentional overexposure can produce serious central nervous system effects, including unconsciousness, and possibly death.

SECTION 12 ECOLOGICAL INFORMATION

Ecological testing has not been conducted on this product by BP Amoco.

SECTION 13 DISPOSAL CONSIDERATIONS

The container for this product can present explosion or fire hazards, even when emptied! To avoid risk of injury, do not cut, puncture or weld on or near this container. Since the emptied containers retain product residue, follow product insert warnings even after container is emptied. Subject to disposal regulations: U.S. EPA 40 CFR 262. Hazardous Waste Number(s): D001. Hazardous Waste Number(s): D008. Dispose of in accordance with U.S. EPA 40 CFR 262 for concentrations at or above the Regulatory level. Regulatory level- 5.0 mg/L. Hazardous Waste Number(s): D018. Dispose of in accordance with U.S. EPA 40 CFR 262 for concentrations at or above the Regulatory level. Regulatory level- 0.5 mg/L.

SECTION 14 TRANSPORT INFORMATION

U.S. DOT 49 CFR 172.101 SHIPPING NAME-ID NUMBER:
Gasoline-UN1203

U.S. DOT 49 CFR 172.101 HAZARD CLASS OR DIVISION:
3

U.S. DOT 49 CFR 172.101 PACKING GROUP:
II

U.S. DOT 49 CFR 172.101 AND SUBPART E LABELING REQUIREMENTS:
Flammable liquid

U.S. DOT 49 CFR 172.101 PACKAGING AUTHORIZATIONS:
EXCEPTIONS: 49 CFR 173.150
NON-BULK PACKAGING: 49 CFR 173.202
BULK PACKAGING: 49 CFR 173.242

U.S. DOT 49 CFR 172.101 QUANTITY LIMITATIONS:
PASSENGER AIRCRAFT OR RAILCAR: 5 L
CARGO AIRCRAFT ONLY: 60 L

MARINE POLLUTANT: Marine Pollutant

CANADIAN TDG SHIPPING NAME-ID NUMBER:
Gasoline-UN1203

CANADIAN TDG HAZARD CLASS OR DIVISION:
3

CANADIAN TDG PACKING GROUP:
II

MARINE POLLUTANT: Marine Pollutant

LAND TRANSPORT ADR/RID:
SUBSTANCE NAME: Motor spirit/Gasoline
ID NUMBER: UN1203
ADR/RID CLASS: 3
ITEM NUMBER: 3(b)
WARNING SIGN/LABEL: 3
HAZARD ID NUMBER: 33

AIR TRANSPORT IATA/ICAO:
CORRECT TECHNICAL NAME: Gasoline

ID NUMBER: UN1203
IATA/ICAO CLASS: 3
PACKAGING GROUP: II
LABEL: Flammable liquid

MARITIME TRANSPORT IMDG:
CORRECT TECHNICAL NAME: Gasoline
ID NUMBER: UN1203
IMDG CLASS: 3.1
PACKAGING GROUP: II
EmS No.: 3-07
MFAG Table No.: 311
MARINE POLLUTANT: N
IMDG CODE PAGE: 3141

SECTION 15 REGULATORY INFORMATION

CERCLA SECTIONS 102a/103 HAZARDOUS SUBSTANCES (40 CFR Part 302.4): This product is exempt from the CERCLA reporting requirements under 40 CFR Part 302.4. However, if spilled into waters of the United States, it may be reportable under 33 CFR Part 153 if it produces a sheen.

SARA TITLE III SECTION 302 EXTREMELY HAZARDOUS SUBSTANCES (40 CFR Part 355):
TETRAETHYL LEAD (as Pb): 100 LBS TPQ

SARA TITLE III SECTION 311/312 HAZARDOUS CATEGORIZATION (40 CFR Part 370):
ACUTE: Y
CHRONIC: Y
FIRE: Y
REACTIVE: N
SUDDEN RELEASE: N

SARA TITLE III SECTION 313 (40 CFR Part 372): This product contains the following substance(s), which is on the Toxic Chemicals List in 40 CFR Part 372:
Benzene

STATE REGULATIONS:
California Proposition 65: Y
Known to the state of California to cause the following:
Benzene
Cancer (Feb 27, 1987)
Developmental toxicity (Dec 26, 1997)
Male reproductive toxicity (Dec 26, 1997)
LEAD COMPOUNDS
Cancer (Oct 01, 1992)

TSCA INVENTORY STATUS: Listed on inventory.

OSHA HAZARD COMMUNICATION STANDARD: Flammable liquid. Carcinogen. Irritant. CNS

Effects. Target organ effects.

EC INVENTORY (EINECS/ELINCS): Not determined.

JAPAN INVENTORY (MITI): Not determined.

AUSTRALIA INVENTORY (AICS): Not determined.

KOREA INVENTORY (ECL): Not determined.

CANADA INVENTORY (DSL): Listed on inventory.

PHILIPPINE INVENTORY (PICCS): Not determined.

CHINA INVENTORY (IECS): Not determined.

SECTION 16 OTHER INFORMATION

SUPPLEMENTAL INFORMATION: This product contains a chemical listed by the State of New Jersey. This product contains a chemical listed by the State of Pennsylvania.

Prepared by: Product Stewardship and Toxicology

This Material Safety Data Sheet conforms to the requirements of ANSI Z400.1. NOTICE: The information presented herein is based on data considered to be accurate as of the date of preparation of this Material Safety Data Sheet. However, no warranty or representation, express or implied, is made as to the accuracy or completeness of the foregoing data and safety information, nor is any authorization given or implied to practice any patented invention without a license. In addition, no responsibility can be assumed by vendor for any damage or injury resulting from abnormal use, from any failure to adhere to recommended practices, or from any hazards inherent in the nature of the product.